AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1.- (Currently Amended) A measurement method for measuring a physical value, comprising

during [[a]] one clock cycle: forming an input signal, a reference signal and an offset signal, the input signal including a parasitic value and a useful measurement value, the signals being respectively associated with an input element, a reference element and a parasitic element, all these elements being coupled [[and]] in a same current or voltage path, thus having a common driving signal of [[the]] a same value, the parasitic value depending on the common driving signal, and

deriving a relationship between the input signal, from which the parasitic value has been cancelled out, and the reference signal, and

from this relationship, determining a value relating to the physical value.

2.- (Original) A measurement method according to claim 1, wherein the input signal is a first voltage.

3.- (Original) A measurement method according to claim 2, wherein the first voltage is obtained from a direct voltage drop over the sensing element.

4.- (Original) A measurement method according to claim 1, wherein the reference signal is a second voltage.

5.- (Original) A measurement method according to claim 2, wherein the reference signal is a second voltage.

6.- (Original) A measurement method according to claim 4, wherein the second voltage is obtained from a direct voltage drop over the reference element.

7.- (Original) A measurement method according to claim 1, wherein the reference element is a reference resistor.

8.- (Original) A measurement method according to claim 1, wherein the offset signal is a third voltage.

9.- (Original) A measurement method according to claim 2, wherein the offset signal is a third voltage.

10.- (Original) A measurement method according to claim 4, wherein the offset signal is a third voltage.

11.- (Original) A measurement method according to claim 8, wherein the third voltage is obtained from a direct voltage drop over the parasitic element.

12.- (Original) A measurement method according to claim 1, wherein the physical value includes any of temperature, a pressure, a light intensity, a position.

13.- (Currently Amended) A measurement system for indirect measurement of a physical value, comprising

an analog-to-digital converter with at least a first, a second and a third port, each of the at least three ports being suitable for receiving an input signal from an element, the analog-to-digital converter being suitable for evaluating the physical value in one measurement cycle,

a sensing element having a pre-defined characteristic parameter related to the physical value to be measured, being coupled to the first port for applying an input signal to said first port,

a reference element being coupled to the second port for applying a reference signal to the second port,

an element corresponding to a parasitic value of the sensing element, being coupled to the third port for applying a parasitic value of the sensing element to the third port, the element, ~~being coupled with~~ the sensing element and the reference element [[and]] being coupled in a same current or voltage path, thus having a common driving signal of [[the]] a same value,

means for deriving a relationship between the input signal, from which the parasitic value of sensing element has been cancelled out, and the reference signal, and

means for deriving, from the relationship, a value relating to the physical value.

14.- (Original) A measurement system according to claim 13, wherein the reference element is coupled in series with the sensing element.

15.- (Original) A measurement system according to claim 13, wherein the element corresponding to a parasitic value of the sensing element is coupled in series with the sensing element.

16.- (Original) A measurement system according to claim 14, wherein the element corresponding to a parasitic value of the sensing element is coupled in series with the sensing element.

17.- (Original) A measurement system according to claim 13, wherein the reference element comprises a reference resistor.

18.- (Original) A measurement system according to claim 13, wherein the physical value is any of a temperature, a pressure, a light intensity, a position.

19.- (New) A measurement method according to claim 1, wherein the input signal, the reference signal and the offset signal are fed to a digital-to-analog converter with at least a first, a second and a third port.